WiFi to RS-422/485 adapter user manual

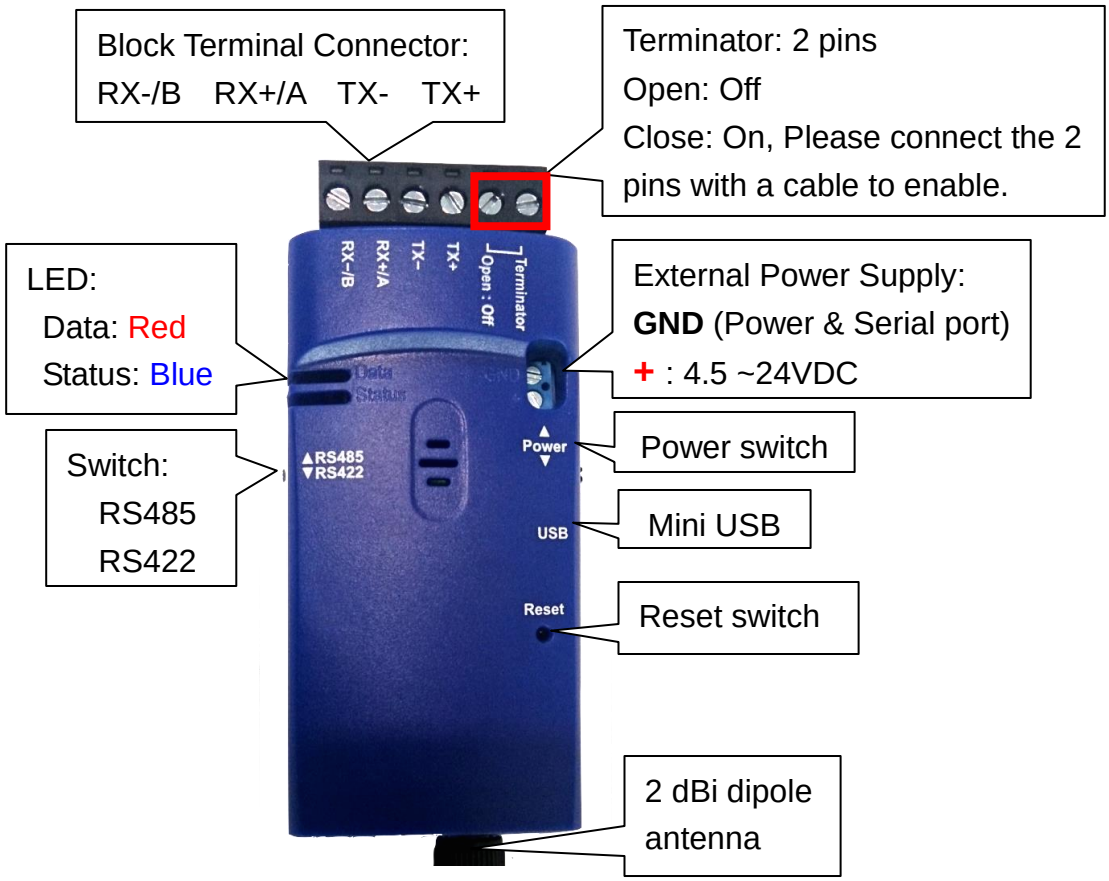
WiFi to RS-232 adapter

White Box Dimension: 11 x 6 x 5 (cm)
Total Package Weight: 132 g
Label: “WA-422B”

Package Contents:

- WiFi RS-422/485 adapter x 1
- 2 dBi dipole antenna x 1
- A4 User manual x 1
- USB Cable x 1

1. Product profile:



2. Start to use the adapter

2.1 Please fasten the external antenna to the adapter and switch RS-422 or RS-485 in right side.

2.2 There’re two power inputs, mini USB or blue 2 ports block terminal. Please switch to choose one way to power the adapter. The max. voltage is 24 VDC input from the blue block terminal.

2.3 COM port default setting:

- Baud rate: 115200 bps
- Data bit: 8

- Parity: none
- Stop bit: 1
- Flow control: none

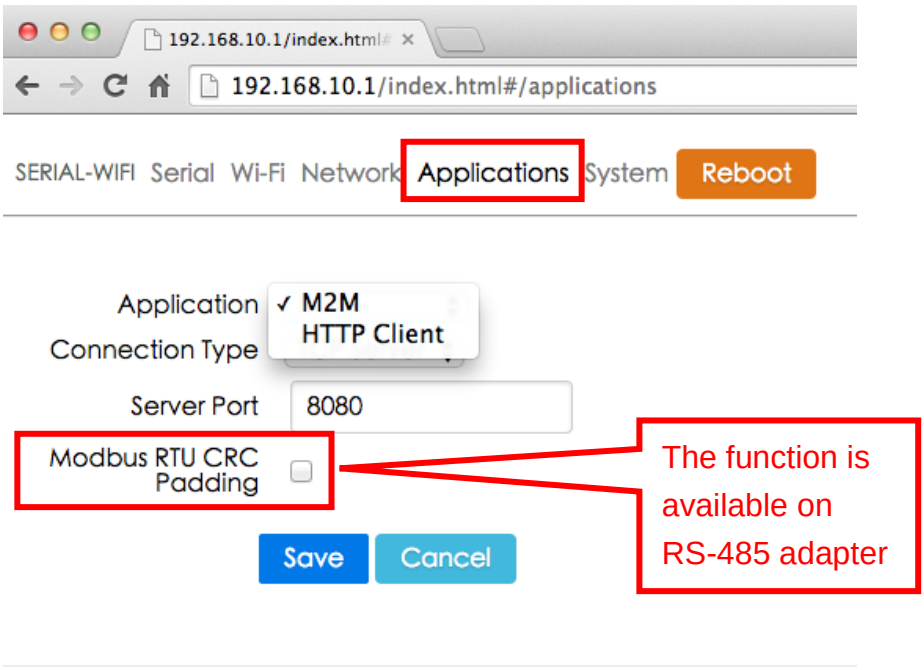
2.4 Network default setting:

- Simple AP with DHCP Server
- SSID: Serial2WiFi_ab_cd (“ab” and “cd” is the last 4 code of Mac address)
- Security(WPA2): 12345678
- IP: 192.168.10.1
- Socket port: 8080
- Channel: 6
- Log in ID: admin
- Log in password: admin

2.5 Power switch: mini USB side by default. The user will switch to the blue 2 ports block terminal side if the power input comes from other sources.

3. Modbus: The adapter support RS-485 Modbus TCP RTU

Please check the box below:



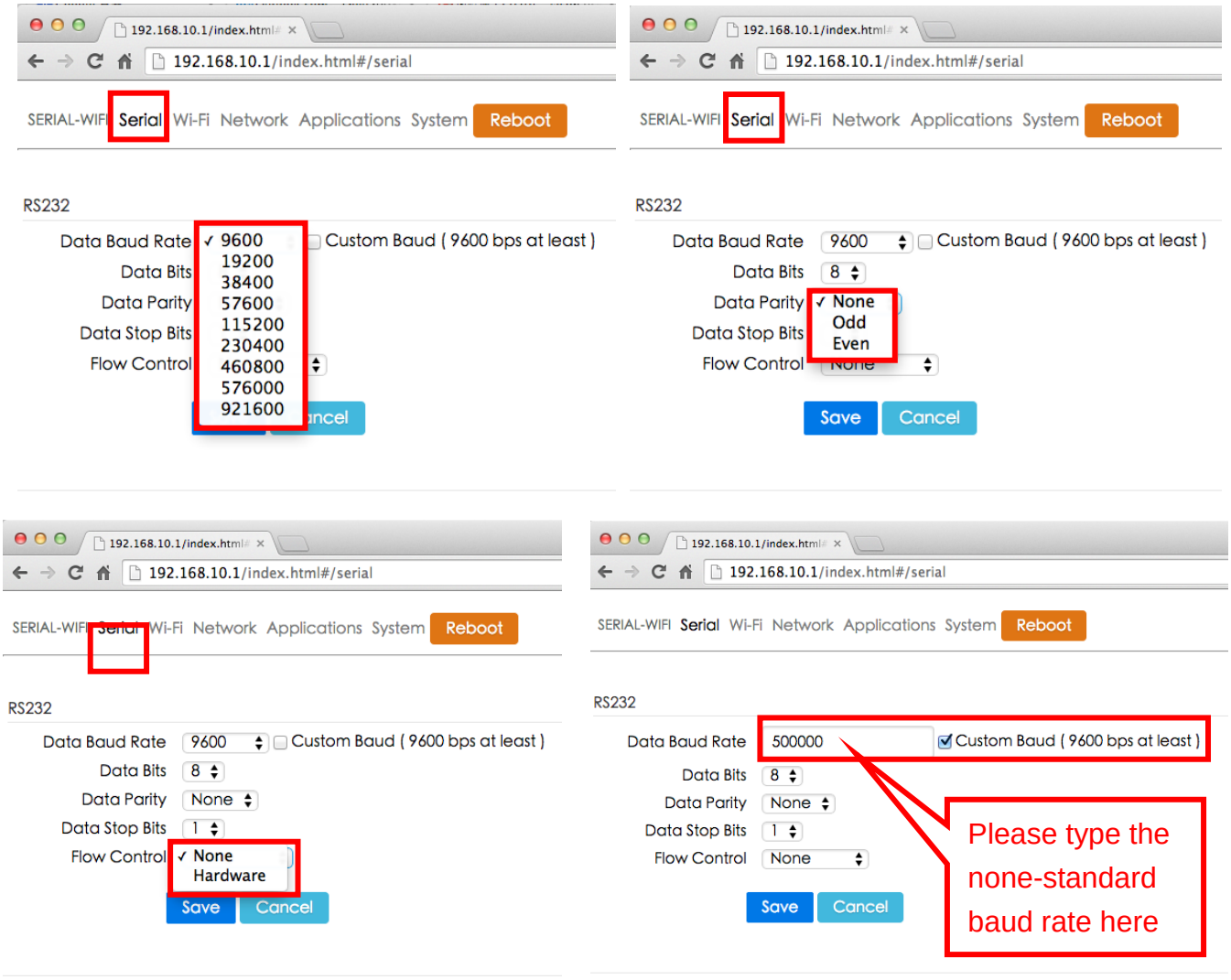
4. Configuration:

4.1 Log in:

- Connect with the WiFi RS-232 adapter by PC,NB or Mobile terminal
- SSID: Serial2WiFi_ab_cd (abcd: Last 4 code of the Mac address)
- Security code: 12345678
- Execute browser, type IP address: 192.168.10.1
- ID: admin
- Password: admin

4.2 Serial setting:

- Baud Rate: 9600~921600 bps
- Data Bits: 8 only
- Parity: None, Odd, Even
- Stop Bits: 1 only

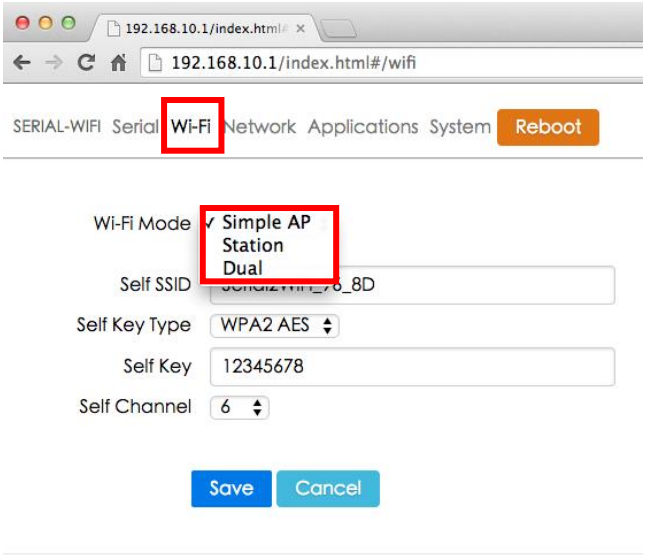


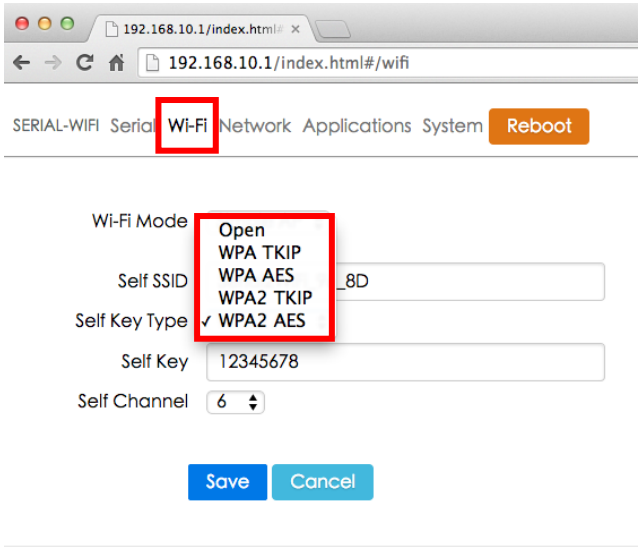
4.3 WiFi setting:

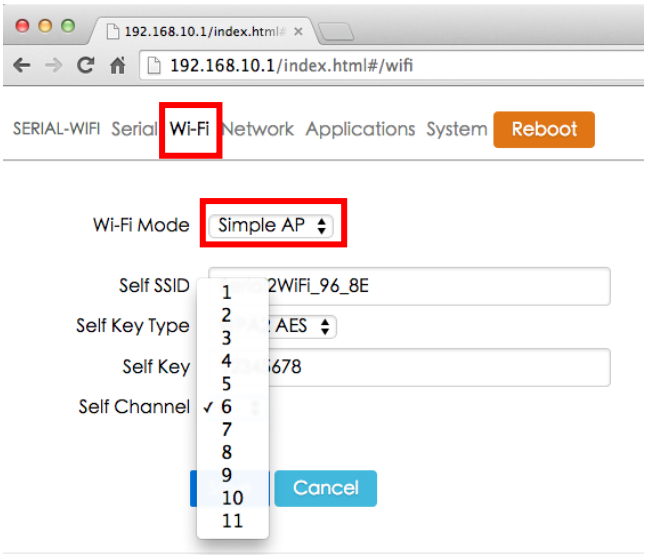
Mode: Simple AP, Station, Dual (AP & Station)

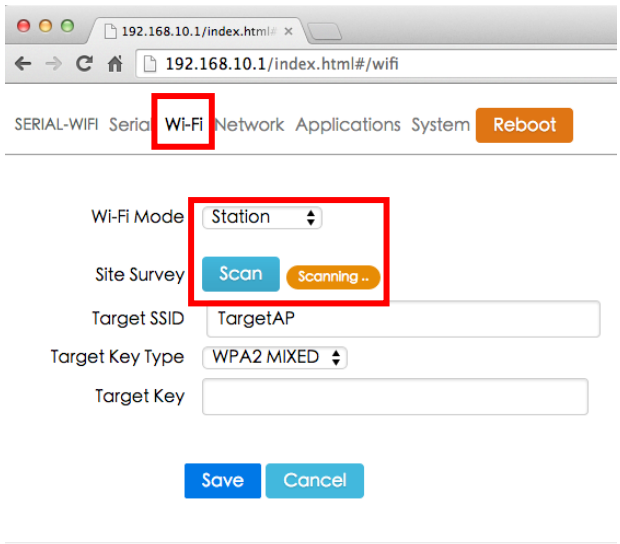
Encryption: Open, WPA TKIP, WPA AES, WPA2 TKIP, WPS2 AES

Channel: auto,1~11, 6 (default)

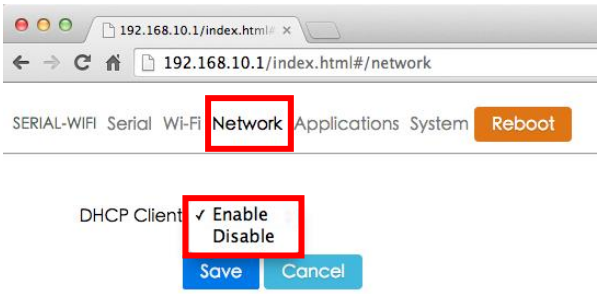


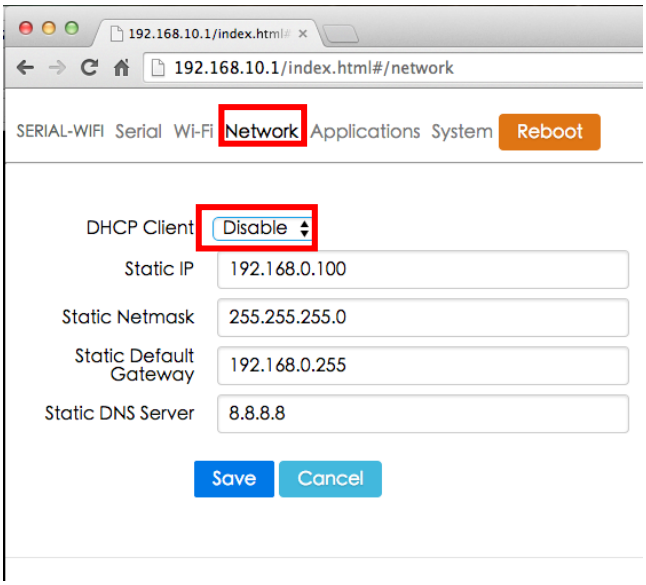






4.4 Network setting:

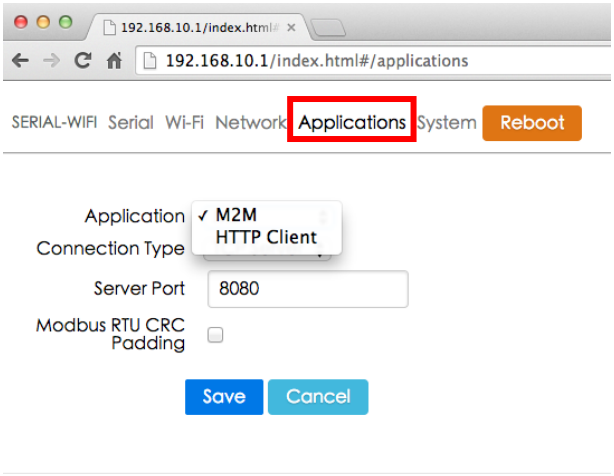


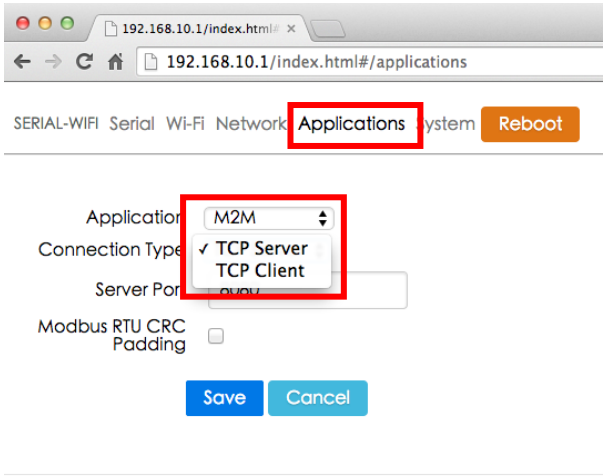


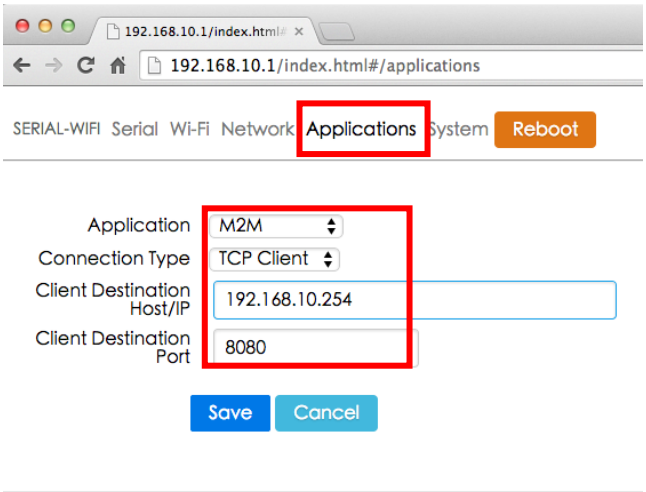
4.5 Applications:

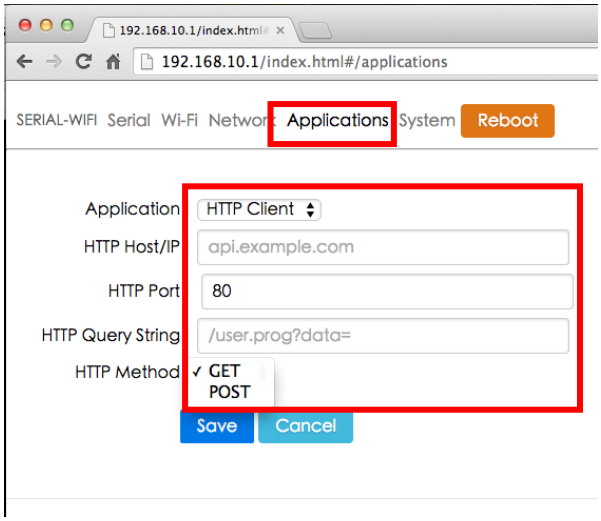
4.5.1 M2M: TCP Server and TCP Client

4.5.2 HTTP Client: GET and POST

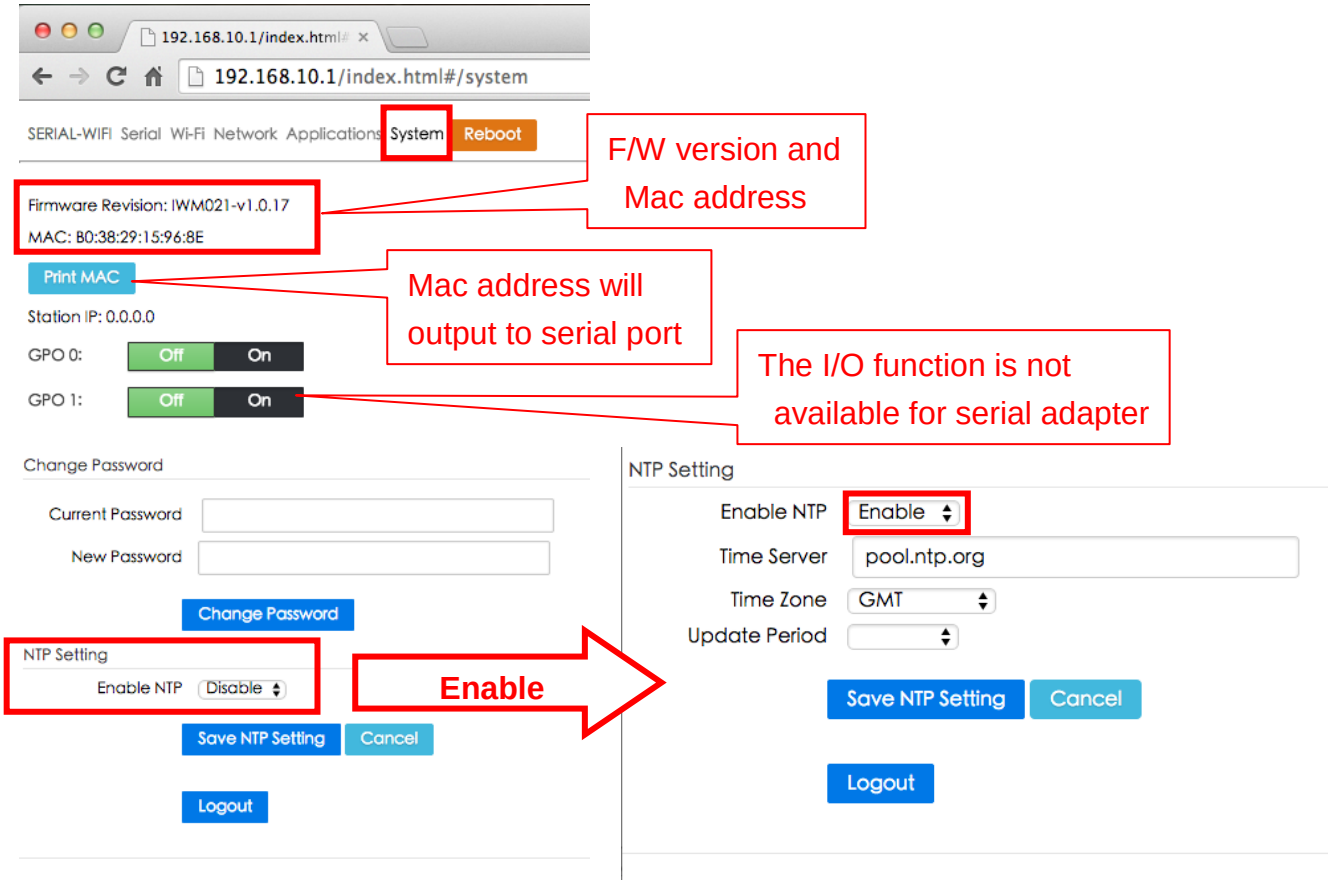

192.168.10.1/index.html#/applications
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot
Application M2M
HTTP Client
Connection Type
Server Port 8080
Modbus RTU CRC Padding
Save Cancel

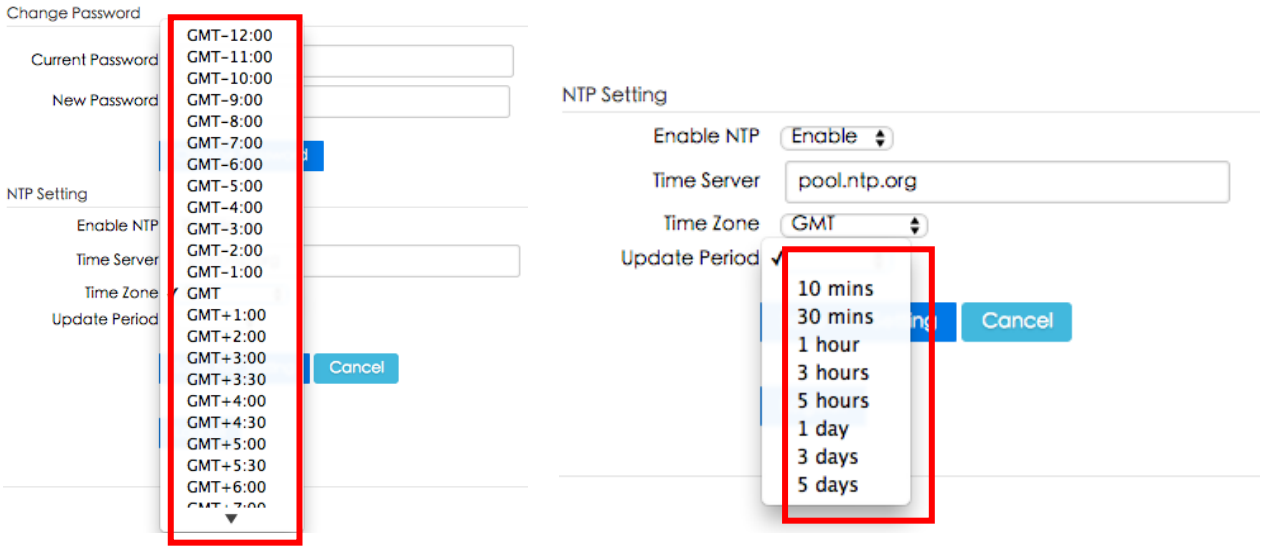

192.168.10.1/index.html#/applications
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot
Application M2M
Connection Type
TCP Server
TCP Client
Server Port
Modbus RTU CRC Padding
Save Cancel


192.168.10.1/index.html#/applications
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot
Application M2M
Connection Type TCP Client
Client Destination Host/IP 192.168.10.254
Client Destination Port 8080
Save Cancel


192.168.10.1/index.html#/applications
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot
Application HTTP Client
HTTP Host/IP api.example.com
HTTP Port 80
HTTP Query String /user.prog?data=
HTTP Method GET POST
Save Cancel

4.6 System:


192.168.10.1/index.html#/system
SERIAL-WIFI Serial Wi-Fi Network Applications System Reboot
Firmware Revision: IWM021-v1.0.17
MAC: B0:38:29:15:96:8E
F/W version and Mac address
Print MAC
Station IP: 0.0.0.0
Mac address will output to serial port
GPO 0: Off On
GPO 1: Off On
The I/O function is not available for serial adapter
Change Password
Current Password
New Password
Change Password
NTP Setting
Enable NTP Disable
Save NTP Setting Cancel
Logout
Enable
NTP Setting
Enable NTP Enable
Time Server pool.ntp.org
Time Zone GMT
Update Period
Save NTP Setting Cancel
Logout



Remark: The NTP data will be bundled with the sensor data for the application of IOT, Internet of Things. If you need the function, the F/W will be modified.

5. LED indication:

Mode	LED Status							Remark
Start (* procedure)	Red (System):	off	on	off	off		on	Red LED solid on when ready
	Blue (Data):	off	on	off	flash ... (not ready)		off	
WPS	Red (System):	flash	go to *					Press over 1 second
	Blue (Data):	off	go to *					
Reset to default	Red (System):	off	go to *					Press over 5 seconds
	Blue (Data):	off	go to *					
Data	Blue (Data): flash when data input or output via serial port							
Failure	Red (System): off when system fail							
OTA	Red (System):	flash in turn with Blue(Data) LED						F/W upgrade, please check section 6.3
	Blue (Data):	flash in turn with Red (System) LED						

6. WPS/Reset button: Please put the paperclip or small pin into the hole for pressing the button.

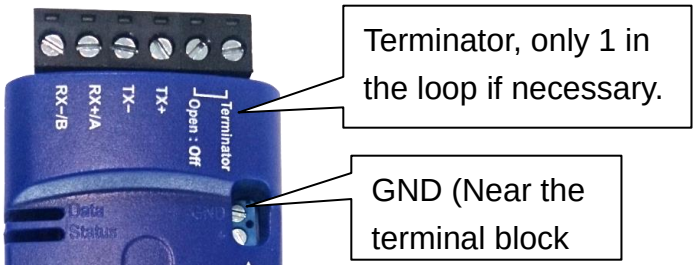
6.1 WPS: Press the button in short time which is not longer than 3 seconds.

6.2 Reset to default setting: Press the button over 5 seconds, the WiFi adapter will reset to default value. The LEDs will be off for some time and then reboot to the default value.

6.3 Firmware upgrade: Power off and press the button, then power on. The two LEDs will flash in turn and release the button. The adapter will be in OTA mode for firmware upgrade.

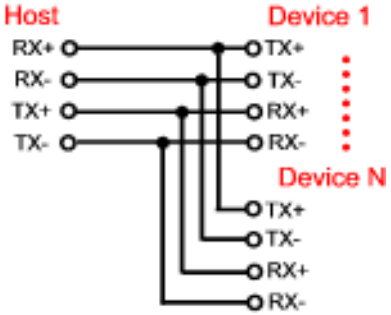
7. RS-422/485 Connection: 4 ports of terminal block

7.1 Pin-out:



7.2 RS-485: Half Duplex, 2 Wires, RX+ (A), RX-(B)

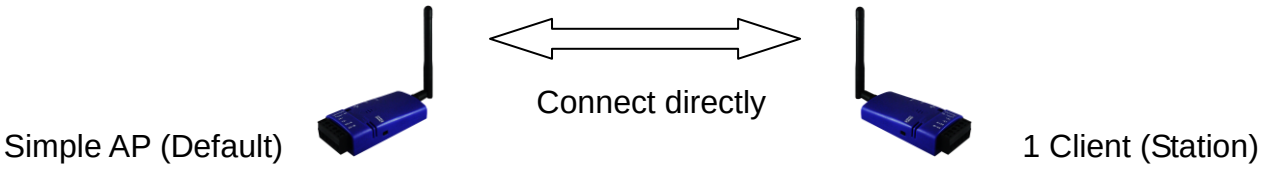
7.3 RS-422: Full Duplex, 4 Wires, RX+ (A), RX-(B), TX+, TX-



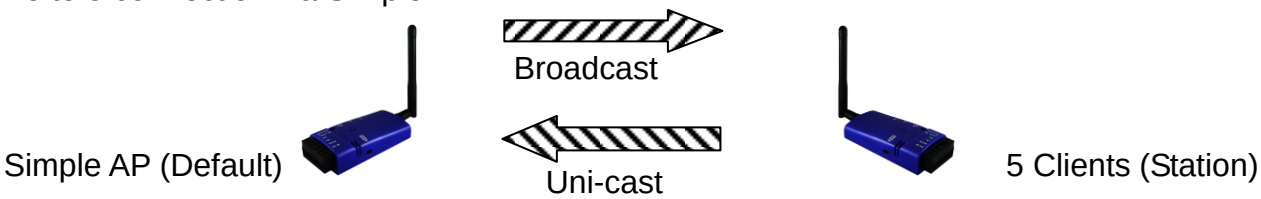
8. Command set: Please check the application note document.

9. Network:

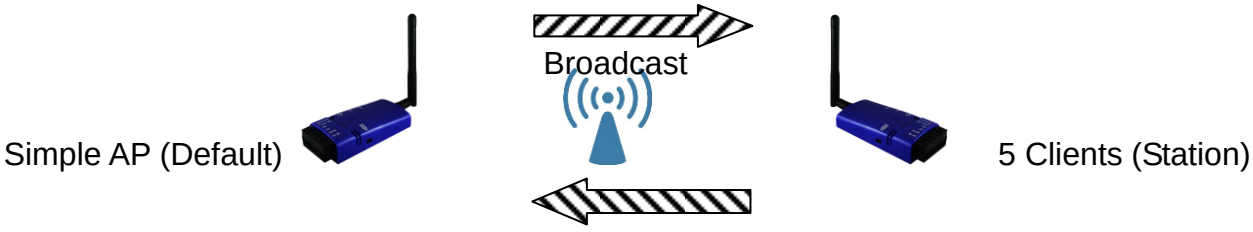
9.1 One to one connection: The two WiFi adapters will be connected directly without access point.



9.2 One to 5 connection via Simple AP



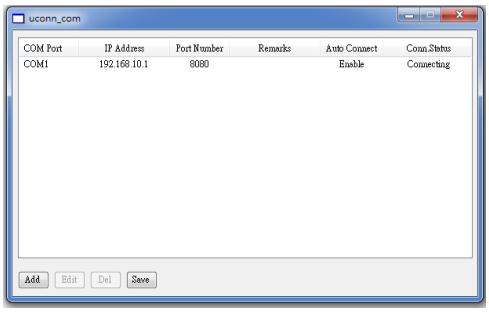
9.3 One to 5 connection via other Access Point:



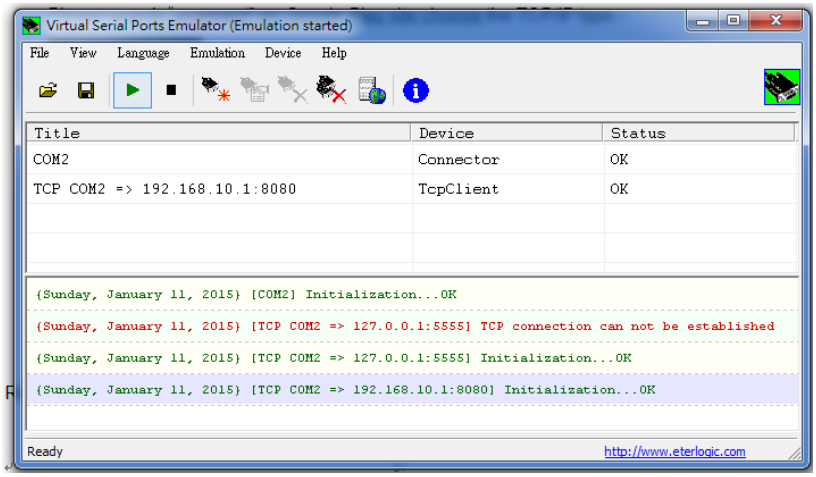
Uni-cast

10. Virtual COM port

10.1 Factory Mac bundled Virtual Serial Port (VSP) Driver (Will be available soon)

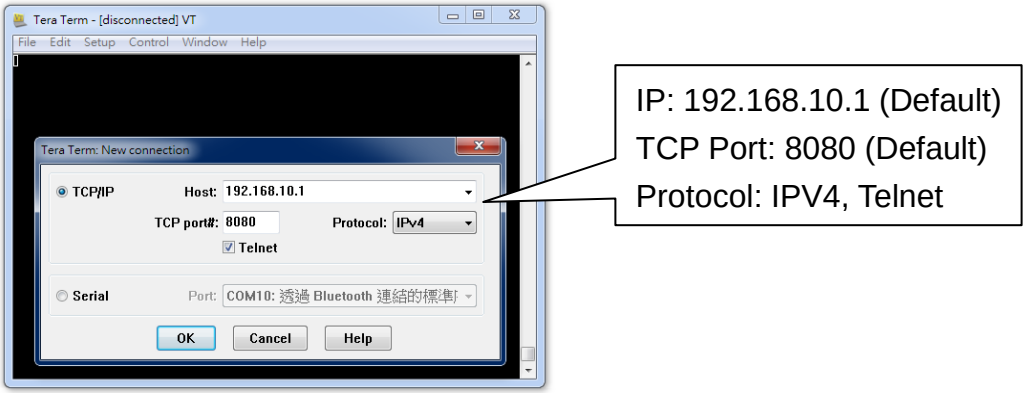


10.2 Reference Driver: www.eterlogic.com

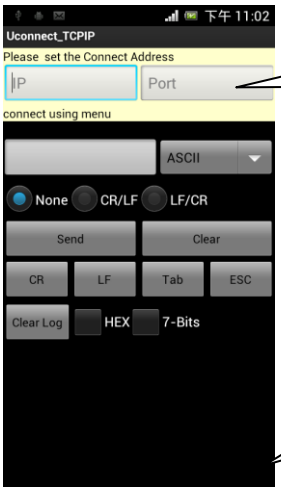


11. Test software:

11.1 Teraterm: ASCII code terminal emulator for TCP/IP socket and COM Port. Please search “teraterm” on Google searching and install the main program.



11.2 Android APP: Android terminal emulator of TCP/IP socket. Support ASCII or Binary format. Please search “uconnect” on Google Play site choose the TCP/IP type.



IP: 192.168.10.1 (Default)
TCP Port: 8080 (Default)

Click the menu on the corner
Select “Connect”

Remark: All contents are subject to change without notice.